

Archiving Data with the Planetary Data System

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Overview

- OSS Science Data Management Policies
- Overview of Planetary Data System (PDS)
- Offer PDS as resource for planning

OSS Science Data Management

- **Key Objectives**

- Preserve and utilize space science data as a National resource
- “Open” Data: data ultimately belongs to science community and public
- Appropriate and balanced allocation of resources for data issues through mission life cycle

- **Requirements**

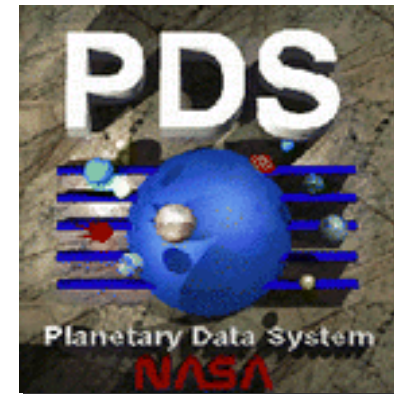
- Projects develop Project Data Management Plan which is reviewed as part of Non-advocate Review
- Timely delivery of science data products to archives for open availability

The Planetary Data System

The PDS manages, preserves, and disseminates the large volume of unique and valuable data returned by Solar System Exploration missions

Key PDS Products:

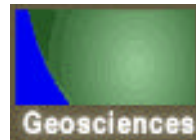
- High quality data archives
- Value-added data products
- Educational data products
- Science expertise for researchers
- Data distribution to planetary scientists
- Interface to active missions and mission planning



<http://pds.jpl.nasa.gov>



New Mexico
State Univ.



Wash Univ.
St. Louis



JPL/USGS
Flagstaff



JPL



UCLA



NASA
Ames



U. Maryland

Node structure provides focus on key disciplines

What is the PDS?

- PDS is the official planetary science data archive for the NASA Office of Space Science (OSS) Solar System Exploration (SSE).
- PDS is chartered to ensure that SSE planetary data are archived and available to the scientific community.
- PDS is a distributed system designed to optimize scientific oversight in the archiving process.
- The PDS has been in existence in its present form for 10 years.

PDS Services

- PDS establishes and maintains standards for high quality data archives.
- PDS works with missions to create complete data sets.
 - PDS develops and maintains a suite of tools to help data producers create and validate archive-quality data products.
 - PDS personnel can be funded by the mission to perform mission archiving tasks.
- PDS provides expert assistance to the scientists who use the archives.
- PDS ensures the viability of planetary data that might otherwise be lost.

PDS Science Support

Small Bodies Node

- **Special data collections gathered and maintained in support of the Near Earth Asteroid Rendezvous (NEAR)**

PPI Node

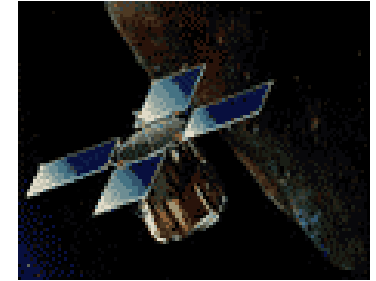
- **Galileo energetic particle data used in support of Europa mission design and radiation modeling**

Atmospheres Node

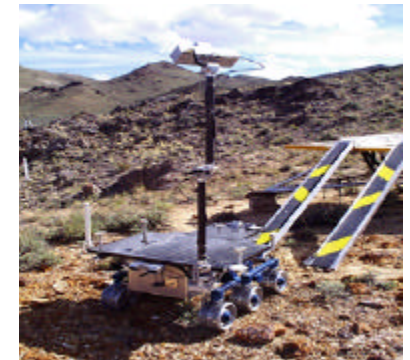
- **Correlation found between convective clouds and a water ice spectral feature in Jupiter's atmosphere using Galileo NIMS and Voyager IRIS data**

Geosciences Node

- **On-line access to MGS MOC, MOLA, and TES data supports 6 oral sessions with approximately 36 presenters from R&A Program at LPSC**



Small Bodies - NEAR was the first Discovery Program spacecraft to be launched and is the first spacecraft to orbit an asteroid.



Geosciences - "FIDO" (Field Integrated Design & Operations) rover, a concept vehicle for the Mars Sample Return missions.

PDS Science Support

Imaging Node

- **Clementine UVVIS multi-spectral products used in selection of landing sites and observation sequences for Selene (Japanese) Lunar Lander/Orbiter**

Rings Node

- **Jupiter Viewer - interactive site widely used in planning observations**

NAIF Node

- **Galileo Europa Mission Observations of the Io Plasma Torus - calculations for radial positions and longitudes**

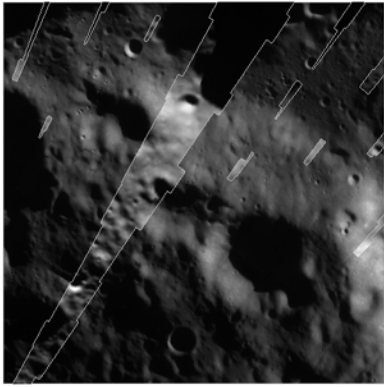


Imaging Node - This true color image of Jupiter, taken by NASA's Cassini spacecraft, is composed of three images taken in the blue, green and red regions of the spectrum. All images were taken from a distance of 77.6 million kilometers (48.2 million miles) on Oct. 8, 2000.

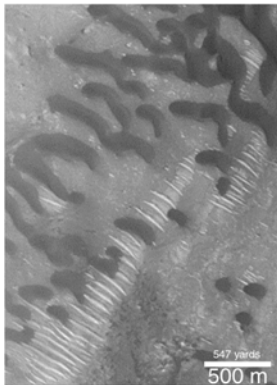


Rings Node - Two of Neptune's narrow rings are visible as arches above the crescent planet. Voyager 2 acquired this image as it encountered Neptune in August of 1989.

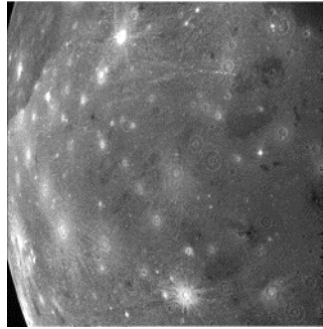
Recently Archived PDS Data



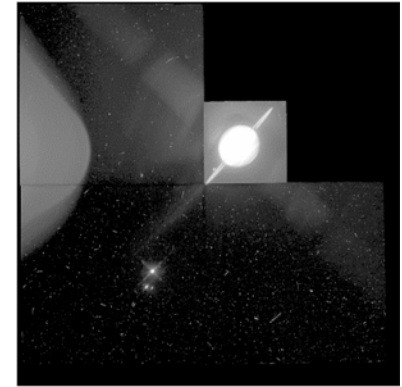
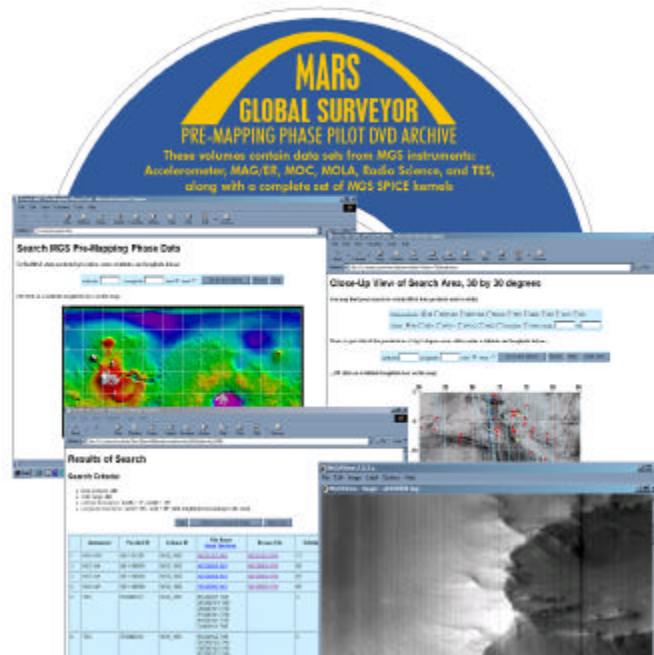
The Clementine High-Resolution Strip Mosaics, produced by Malin Space Science Systems, are organized on a 22 CD-ROM volume set. The image shows a portion of the high-resolution mosaic near the Lunar south pole centered at 87° south latitude, 30° east longitude.



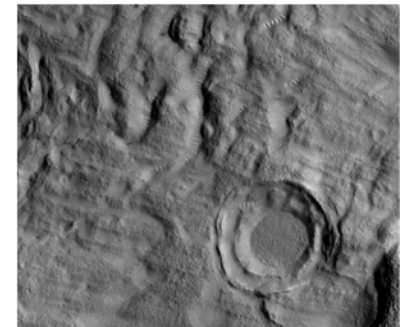
*Dark Dunes Over-riding
Bright Dunes
MGS/MOC Release No.
MOC2-201, 1/31/2000*



Galileo SSI image of Ganymede, taken while orbiting Callisto (volume GO_0019, "C9" orbit).



This Hubble image is from the Rings Plane Crossing volume (RPX_0004) showing all four Wide Field Planetary Camera 2 images, properly scaled and rotated into a mosaic.



*MOC Narrow angle image
M0202861 of Neith Regio centered
at latitude 37.25, longitude 268.24.
The recent release of the
MGS/MOC image data to the
science community offers exciting
Mars geologic research
opportunities.*

For Further Information....

- Log in to *<http://pds.jpl.nasa.gov>*
- Go to **Data Producer** for on-line standards information, sample archive plans, other help
- Contact PDS for any additional information required



<http://pds.jpl.nasa.gov>



Welcome to the Planetary Data System



Home	Public	Scientists	Educators	Data Producers	Related Sites	Help
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The Planetary Data System (PDS) archives and distributes scientific data from NASA planetary missions, astronomical observations, and laboratory measurements. The PDS is sponsored by NASA's Office of Space Science. Its purpose is to ensure the long-term usability of NASA data and to stimulate advanced research.

FOR THE PUBLIC

This is the place to go for dazzling images and information about the planets.

FOR SCIENTISTS

This is where you can find science data and documentation archived in PDS.

FOR EDUCATORS

This link takes you to our educational resources.

FOR DATA PRODUCERS

This section provides the tools and information you need to archive data in the PDS.

The Planetary Data System Nodes

The PDS includes seven university/research center science teams, called discipline nodes. You can visit them through the links below.



PDS Webmaster

PDS Project Manager: Elaine Dobinson, JPL

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